

INFORMATION DISCLOSURE STATEMENT BY APPLICANT
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U.S. PATENT AND TRADEMARK OFFICE
Applicant
James L. TourFiling Date
July 25, 2001Group
1631

REFERENCE DESIGNATION U.S. PATENT DOCUMENTS

| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE IF APPROPRIATE |
|------------------|----|-----------------|----------|------------------|-------|-----------|----------------------------|
| AM | AA | 4,728,672 | 03/01/88 | Yoshinari et al. | 518 | 717 | |
| | AB | 5,126,377 | 06/30/92 | Bessell | 518 | 714 | |
| | AC | 5,475,341 | 12/12/95 | Reed | 327 | 566 | 06/01/92 |
| | AD | 5,589,692 | 12/31/96 | Reed | 257 | 23 | 04/11/95 |
| | AC | 6,128,214 | 10/03/00 | Kuckes et al. | 365 | 151 | 03/29/99 |
| | AD | 6,198,655 | 03/06/01 | Heath et al. | 365 | 151 | 12/10/99 |
| AM | AD | 6,259,277 | 07/10/01 | Tour et al. | 326 | 136 | 07/26/99 |

FOREIGN PATENT DOCUMENTS

| | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | Translation |
|--|--|-----------------|------|---------|-------|-----------|-------------|
| | | | | | | | YES NO |
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OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

| | | |
|----|----|--|
| AM | AE | Online publication of Science 285, 391-394 (1999); Retrieved 06/01/01 |
| | AF | Online publication of Scientific American 282, 86-93 (June 2000); Retrieved 05/21/01 |
| | AG | Preprint of Proc. IEEE; 865, 541-557 (1997); A Device Architecture for Computing with Quantum Dots |
| | AH | Preprint of Lecture Notes in Computer Science 1663, pp. 217-218 (1999); "Go With the Winners" Algorithm |
| | AI | Preprint of Applied Physics Letters 77, 1224-1226 (Aug. 21, 2000); Room-Temperature Negative Differential Resistance in Nanoscale Molecular Junctions |
| | AJ | Smet, Jurgen H., et al; Peak-to-Valley Current Ratios as High as 50:1 at Room Temperature in Pseudomorphic $In_{0.53}Ga_{0.47}As/AlAs/InAs$ Resonant Tunneling Diodes; American Institute of Physics, March 1, 1992; (pp. 2475-2477) |
| AM | AK | Dunbar, T.D., et al; Combined Scanning Tunneling Microscopy and Infrared Spectroscopic Characterization of Mixed Surface Assemblies of Linear Conjugated Guest Molecules in Host Alkanethiolate Monolayers on Gold; J. Phys. Chem. B 2000; (pp. 4880-4893) |
| AM | AL | Chopard, B. et al; Cellular Automata Modeling of Physical Systems; Cambridge University Press (undated); (p. 7) |
| AM | AM | Toffoli, T.; Cellular Automata as an Alternative to (Rather Than An Approximation of) Differential Equations in Modeling Physics; North-Holland Physics Publishing Division; 1984; (pp. 1) |
| | AN | Gutowitz, H. A.; Cellular Automata; MIT/North-Holland; 1990; (pp. 4) |
| | AO | Herman, G. T., et al; Discrete Tomography; Birkhäuser 1999; (pp. 5) |
| AM | AP | Goldberg, D. E.; Genetic Algorithms in Search, Optimization, and Machine Learning; Addison-Wesley; reprint March 1997; (pp. 2) |
| AM | AQ | Pham, D. T., et al; Intelligent Optimization Techniques; Springer Verlag Berlin Heidelberg New York; (undated); (pp. 8) |
| AM | AR | Nelder, J. A., et al; A Simplex Method for Function Minimization; Computer Journal 7, 308-313; 1965; |
| AM | AS | Ackley, D. H.; A Connectionist Machine for Genetic Hillclimbing; Kluwer Academic Publishers 1987; (pp. 110) |



Form PTO-1449 (Modified)

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| | | |
|----------|-------------------------|---|
| AM | AT | Goldberg, D. E.; <i>A Gentle Introduction to Genetic Algorithms</i> ; from <i>Genetic Algorithms in Search Optimization, and Machine Learning</i> ; Addison Wesley, Reading MA. 1989; (pp. 25) |
| | AU | Chen, J., et al.; <i>Large On-Off Ratios and Negative Differential Resistance in a Molecular Electronic Device</i> ; American Assoc. for the Advancement of Science 1999, Vol. 286, (pp. 1550-1552) |
| | AV | Ellenbogen, J. C., et al; <i>Architectures for Molecular Electronic Computers</i> ; Proc. Of IEEE; March 2000 (pp. 386-426) |
| | AW | Metzger, R. M., et al; <i>Unimolecular Electrical rectification in Hexadecylquinolinium Tricyanoquinodimethanide</i> ; J. Am. Chem. Soc. 1997, 119, (pp. 10455-10466) |
| | AX | Donhauser, Z. J., et al; <i>Conductance Switching in Single Molecules Through Conformational Changes</i> ; Science; Vol. 292 June 22, 2001; (pp. 2303-2307) |
| | AY | Dirk, Shawn M., et al; <i>Accoutrements of a Molecular Computer: Switches, Memory Components and Alligator Clips</i> ; Tetrahedron 57; 2001; (pp. 5109-5121) |
| | AZ | Chanteau, S. H., et al; <i>Synthesis of Potential Molecular Electronic Devices Containing Pyridine Units</i> ; Tetrahedron Letters 42; 2001; (pp. 3057-3060) |
| | BA | Dubrova, E., et al; <i>A Comment on "Graph-Based Algorithm for Boolean Function Manipulation"</i> ; IEEE Transactions on Computers, Vol. 49, No. 11; November 2000; (pp. 1290-1292) |
| | BB | Tour, James M.; <i>Molecular Electronics, Synthesis and Testing of Components</i> ; Accounts of Chemical Research®; Reprinted from Vol. 33, No. 11; (pp. 791-804) 2000 |
| | BC | Nakashi, David P., et al; <i>Moletronics: A Circuit Design Perspective</i> ; Preprint of Proc. SPIE 4236; (pp. 80-88) |
| AM | BD | Online publication of Spice; (pp. 1-6); Retrieved 06/01/01; |
| EXAMINER | André Marand | |
| | DATE CONSIDERED 8-22-03 | |

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP '609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

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